

PUBLISHED: 14-JAN-2020
2020.0 DEFENDER (LE), 204-00

SUSPENSION SYSTEM - GENERAL INFORMATION

WHEEL AND TIRE ASSEMBLY BALANCING (G2436053)

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CHECK

 CAUTION:

Only Jaguar Land Rover approved wheel and tire balancing equipment must be used during this procedure.

 NOTES:

- **If a retailer sub-contracts tire replacement and/or balancing the contractor must be suitably equipped with the JLR approved wheel and tire balancing equipment.**
- Until flat-spots are removed, significant vibration/shimmy may be present. A road test is required to make sure temporary tire flat-spots are removed. For longer term flat-spots, a longer road test may be required. The road test should be completed on normal open roads (highway is optimal) to allow the highest speed that speed limits and road/traffic conditions safely allow.
- **All road tests must be performed with tire pressures at 29psi / 2.0bar / 200kPa.**

1. Remove the wheel and tire(s).

Refer to: Wheel and Tire (204-04, Removal and Installation).

- 2.

- Adjust the tire pressure(s) to 36psi / 2.5bar / 250kPa.
- Using the JLR approved tire balance equipment, balance the wheel and tire assembly until the residual imbalance dynamic is minimized.
- Target is 0g (zero grams) on each plane; maximum is inner 5g, outer 5g.
- Use the 'bulls-eye' balancing mode to minimize residual imbalance.

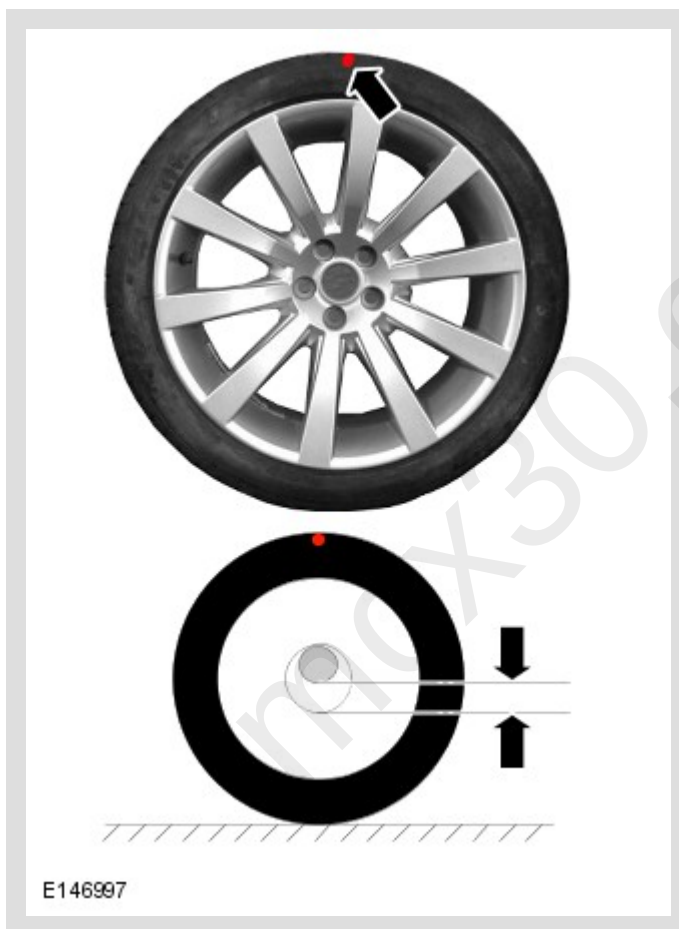
- 3.

- The maximum Radial Force Variation (RFV) values should be as follows:
- 60N (6.1kg, 13.5lbf) First Harmonic.
- 100N (10.2kg, 22.5lbf) Peak to Peak.

4.

- If these levels cannot be achieved, perform the following:
- Remove the tire.
- Follow the match mounting procedure as detailed by the wheel balance equipment.
- Mark the high point of the 1st harmonic RFV on the outer (and inner for future reference) sidewall of the tire.
- On vehicles installed with electric power steering: Install the lowest 1st harmonic RFV wheel/tire assemblies to the rear axle. On vehicles installed with hydraulic power steering: Install the lowest 1st harmonic RFV wheel/tire assemblies to the front axle.
- Print out the results of the balance and force variation (before and after), and attach to the repair order.

5.



Prior to tightening the wheel nuts, the high-point of RFV should be marked and the road wheel and tire assembly installed to the vehicle with the RFV high point at the top.

6.

NOTE:

Nothing should be used to brace the wheel while tightening the nuts as this can disturb the match mounting.

Install the wheel and tire(s).

Refer to: Wheel and Tire (204-04, Removal and Installation).

7. Lower the vehicle.

- 8.
- Tighten the wheel nuts to the specified torque.
Refer to: Specifications (204-04, Specifications).
 - Adjust tire pressures to recommended (cold) settings.
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9. Road test the vehicle for approximately 8 Km (5 miles), if possible road test the vehicle at speeds up to approximately 80 Km/h (50 mph).

10. Return the vehicle to the customer with a full explanation of the situation/flat-spot scenario, and how it can /does affect driving the vehicle until the wheel and tire reaches normal operating temperature.
